Moving Mountains

Reversing Trends in Colorado's Health and Health Care Spending Through Investments in Chronic Disease Prevention

Colorado Department
of Public Health
and Environment

Chronic diseases are among the most preventable of all health problems.

Understanding the Focus on Chronic Disease

Many factors determine the health status of a state. The availability and quality of health care services are critical. The ability of public and private sources to support programs to prevent health problems and reduce their burden is equally important. The degree to which certain populations in the state experience higher rates of disease and death has a significant impact on overall health status. The willingness of individuals to take responsibility for their own health and well-being also plays a key role in building a healthy state.

As Colorado rises to the task of improving health and health care, the focus necessarily falls on chronic disease. With increased longevity, the biggest threats to health and wellness are those diseases and conditions that persist over an extended period of time, leaving individuals vulnerable to a lifetime of progressive disability. Heart disease, diabetes, cancer, lung disease and other chronic conditions affect nearly half of all Americans[1] and far outnumber all other causes of death combined.

In addition to having a negative impact on individuals, chronic disease burdens the health care system with the need for ongoing medical monitoring, intervention and hospitalization. Employers and workers struggle to support the cost of chronic disease care, and productivity suffers as these conditions create activity limitations among the state's work force.

Reversing these trends in health and health care spending in Colorado can seem as daunting as moving our mountains.

Complete source list on page 28.

But with sufficient focus and investment, this picture of chronic disease can change. Chronic diseases are among the most preventable of all health problems. Most chronic diseases share a set of primary risk factors: obesity, poor nutrition, lack of physical activity and tobacco use. Reducing or eliminating these behaviors among Coloradans can lead to significant improvements in rates of cardiovascular disease, diabetes, lung disease and some cancers. In addition, screening techniques, such as checking blood lipid levels, mammograms and Pap tests, can detect chronic diseases at early stages when they are more amenable to control or treatment. Cost savings from prevention and screening can bring needed relief to the state's health care system.

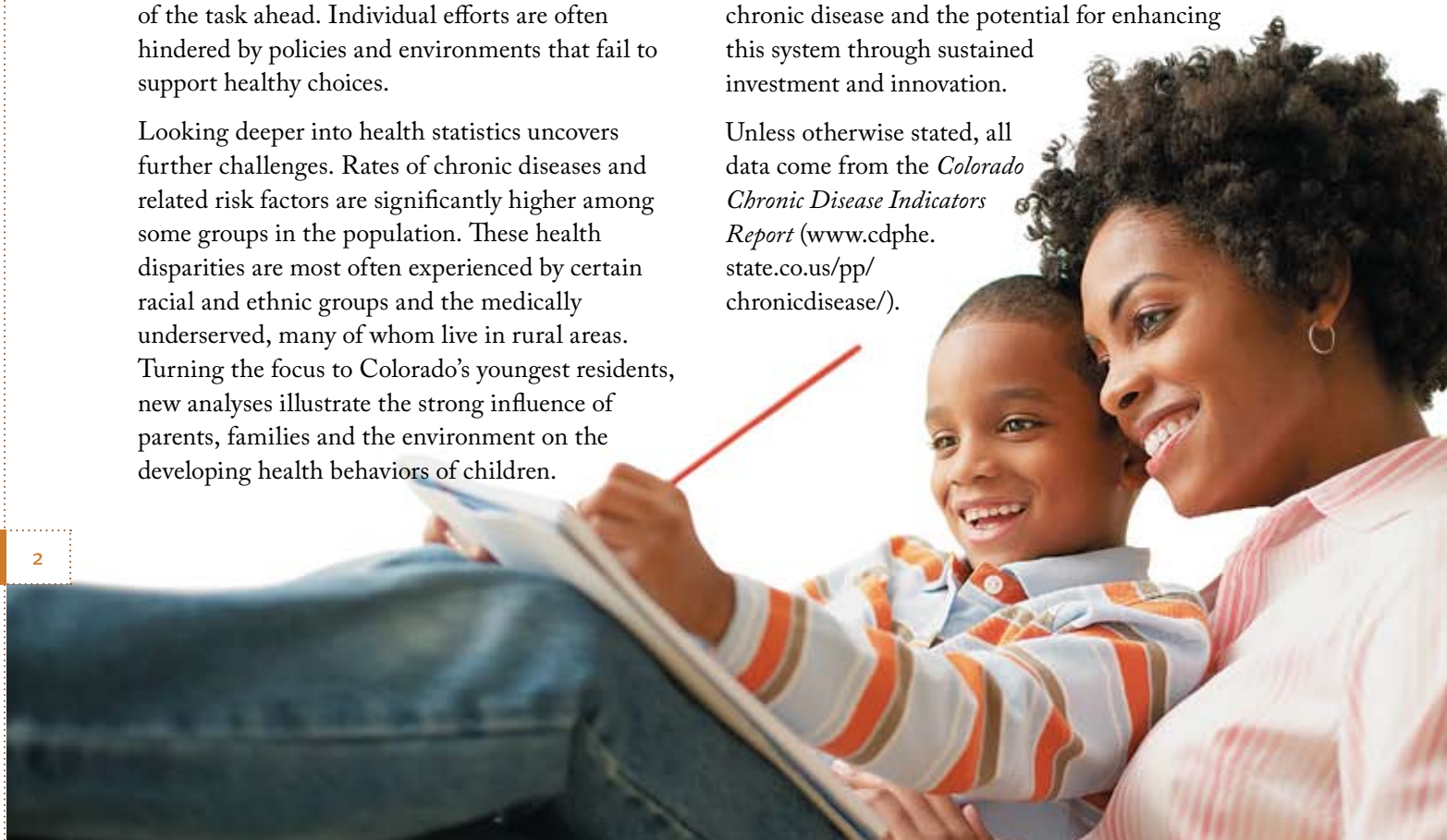
A great challenge of chronic disease prevention is that reducing primary risk factors often requires difficult lifestyle changes for individuals. Epidemic increases in obesity, slowing progress on reducing smoking rates and negligible levels of fruit and vegetable consumption provide humbling evidence of the task ahead. Individual efforts are often hindered by policies and environments that fail to support healthy choices.

Looking deeper into health statistics uncovers further challenges. Rates of chronic diseases and related risk factors are significantly higher among some groups in the population. These health disparities are most often experienced by certain racial and ethnic groups and the medically underserved, many of whom live in rural areas. Turning the focus to Colorado's youngest residents, new analyses illustrate the strong influence of parents, families and the environment on the developing health behaviors of children.

In spite of these difficulties, there can be no more important strategy for improving the health of Coloradans and preserving state health care spending than investing in chronic disease prevention. Over the past decade, the state of Colorado has begun to develop chronic disease programming, initially funded through federal grant dollars. With voters' approval of an increased tobacco excise tax in 2004, Colorado legislators have been able to direct state funding toward efforts to reduce cardiovascular disease, cancer, lung disease, tobacco use and related health disparities. Working in partnership with the private sector and nonprofit organizations has leveraged additional resources toward this effort. These investments hold promise for better health outcomes for all Colorado residents and reduced costs for Colorado's health care system.

This report presents key findings about chronic disease, preventive behaviors, screening strategies and related factors among the people of Colorado. It includes a discussion of the role of the state and its partners in preventing, detecting and treating chronic disease and the potential for enhancing this system through sustained investment and innovation.

Unless otherwise stated, all data come from the *Colorado Chronic Disease Indicators Report* (www.cdphe.state.co.us/pp/chronicdisease/).



Colorado Chronic Disease Indicators Report

Monitoring health status in a state or community is one of the ten essential public health services. Understanding patterns of disease and risk factors can assist in planning programs and services, distributing resources and evaluating progress toward goals for a healthy citizenry.

In 2001, the National Association of Chronic Disease Directors, Council of State and Territorial Epidemiologists and the Centers for Disease Control and Prevention began a process to promote monitoring of diseases and disease risk factors at the state level using common definitions and measures. The result was a list of 92 indicators relevant to chronic disease for which data were regularly available for the majority of states. A report on the indicators was published in 2004. (See www.cdc.gov/mmwr/preview/mmwrhtml/rr5311a1.htm.)

Given the significance of chronic disease to health care and public health in Colorado, the Colorado Department of Public Health and Environment has replicated this report for the state. Sources such as the Behavioral Risk Factor Surveillance System, U.S. Census, Youth Risk Behavior Survey, Colorado Cancer Registry and hospital discharge data were used to compile Colorado data that mirrored the national indicators.

Appendix 1 lists the full set of indicators identified by the national work group, noting the items for which Colorado-specific data were not available. The full Colorado report includes data through 2005 and illustrates trends over time when multiple years of data were available. The full report includes a description of the data sources and methodology used to create the report. In addition, the importance of each indicator to overall health status is discussed.

The full *Colorado Chronic Disease Indicators Report* can be found at www.cdphe.state.co.us/pp/chronicdisease/.

Understanding the Data

The number and characteristics of the people in a state are continually changing. Certain statistics that take into account the dynamic nature of population groups are used to describe the state's health status. This is especially important when comparing diseases or deaths over time. Here are some important terms to understand in reviewing the data on chronic disease:

RATE

The most common way to describe the presence of disease or deaths from a disease in a population is as a rate. A rate is expressed in relation to a certain number of people, such as "per 1,000" or "per 100,000." Rates can be compared if the number of people in the whole group is the same.

PREVALENCE

This refers to the percentage of people in a population that has a certain disease or risk factor. It is expressed as a percentage (that is, a rate of "per 100").

INCIDENCE

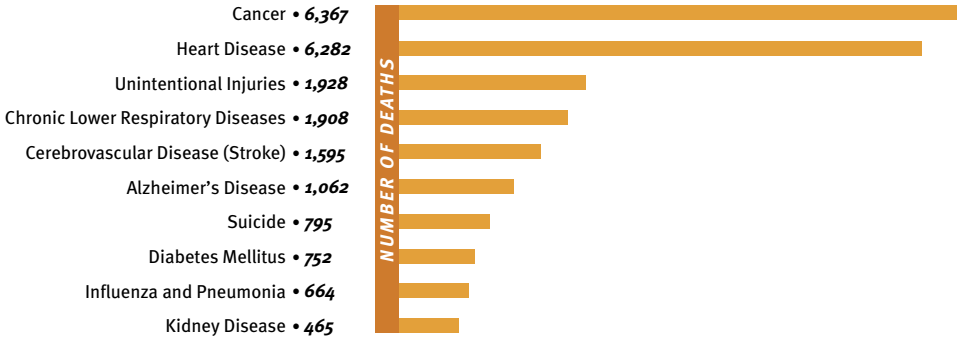
This term refers to new cases of disease that have occurred in a population during a specific period of time. It is expressed as a rate.

Chronic Disease in Colorado

Figure 1 presents a clear picture of the impact of chronic disease on the people of Colorado. Chronic diseases accounted for 6 of the 10 leading causes of death and more than 80 percent of all deaths in Colorado in 2005. Cancer and heart disease alone made up nearly 60 percent of deaths among Coloradans.

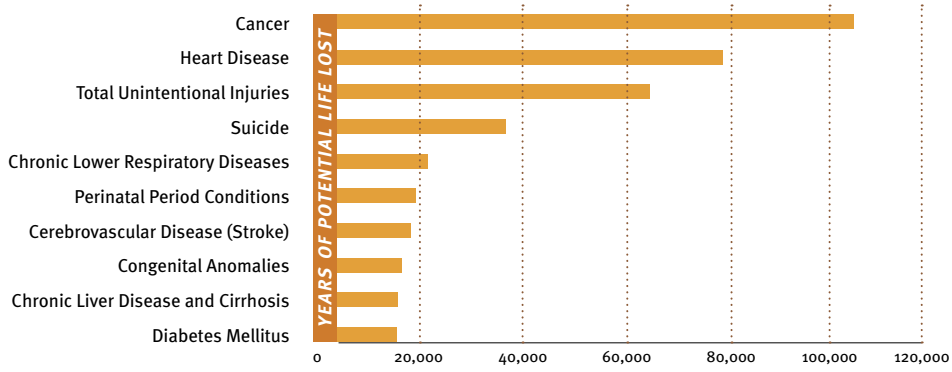
Many of these 17,369 deaths from chronic disease were preventable. One way of measuring the impact of premature, or preventable, deaths is through *years of potential life lost.* This calculation is based on estimating the average time a person would have lived had he or she not died before life expectancy. In 2005, cancer deaths in Colorado accounted for more than 100,000 years of potential life lost. Nearly 80,000 years of potential life was lost due to heart disease in Colorado that same year. (See Figure 2.)

figure 1. ***Leading Causes of Death: Colorado Residents, 2005***



SOURCE: Colorado Department of Public Health and Environment, Vital Statistics Section

figure 2. ***Leading Causes of Years of Potential Life Lost Before Life Expectancy: Colorado Residents, 2005***



SOURCE: Colorado Department of Public Health and Environment, Vital Statistics Section

Looking at trends over time in the death rate, incidence (new cases) and prevalence (all cases) of chronic disease for the overall population of Colorado shows varied levels of progress and concern for the state's prevention efforts:

Encouraging

CARDIOVASCULAR DISEASE

Cardiovascular disease refers to a range of diseases, including heart disease, essential (primary) hypertension, hypertensive renal (kidney) disease, cerebrovascular disease (stroke), atherosclerosis and other diseases of the circulatory system.

- There was a 28 percent decrease in the death rate from major cardiovascular diseases between 1990 and 2005.
- For heart disease alone, the death rate decreased by 33 percent during this period.
- For stroke alone, the death rate decreased by 21 percent during this period.
- Among major heart diseases, an increase in the death rate was seen only for congestive heart failure during this period.

OVERALL CANCERS

- For all cancers combined, the rate of new cases of cancer among men fell 1-2 percent each year between 1992 and 2002. This was primarily due to declines in colorectal, lung and prostate cancer.
- However, the rate of deaths from all cancers changed little from 1997 to 2001.

Cautious

CHRONIC LOWER RESPIRATORY DISEASE

Chronic lower respiratory disease refers to chronic obstructive pulmonary disease (emphysema and chronic bronchitis) and asthma.

- The rate of deaths from chronic obstructive pulmonary disease remained relatively stable between 1990 and 2005.
- For asthma alone, the death rate declined slightly during this time period.

HEALTH DISPARITIES FOR MAJOR CHRONIC DISEASES

- Despite improvement in the overall death rate from cardiovascular disease, African-Americans and Hispanics continue to have a higher death rate than non-Hispanic Whites.
- African-Americans also have a higher death rate from overall cancers than non-Hispanic Whites.

Of Concern

DIABETES

- The proportion of Colorado adults who were diagnosed with diabetes increased 44 percent between 1993 and 2005 (from 2.7 percent to 4.8 percent of the adult population).
- However, the rate of deaths where diabetes was an underlying cause remained relatively the same from 1990 to 2005.

MELANOMA

- From 1992 to 2002, the rate of new cases of melanoma (a dangerous type of skin cancer) increased slightly in Colorado.
- However, the rate of deaths from melanoma remained fairly stable during this time.

Nearly half of the U.S. population suffers from at least one chronic disease[2]. Following current trends, this proportion is likely to increase as the population of Americans grows older.

Striving to be the Healthiest State in the Nation

Reports that compare the health status of states seem to appear regularly in health publications and the popular press. Depending on the specifics of the comparison, Colorado often is found to be one of the healthier states on those lists. Looking at the indicators of chronic disease and deaths from chronic disease, it does appear that Coloradans fare better than Americans as a whole.

- Death rates from heart disease, chronic obstructive pulmonary disease, diabetes and overall cancers were lower than national rates over most of the past decade, although death rates for stroke, congestive heart failure and asthma hovered close to national rates. The death rate for melanoma among Colorado men is higher than for the nation.
- Rates of new cases of cancer were lower than the national rates, with the exception of melanoma, which was much higher, and breast cancer, which was slightly higher.
- The percentage of persons in Colorado with a diagnosis of diabetes is lower than the national average.
- More or less the same percentage of Coloradans describe themselves as having fair to poor health as people across the nation and Coloradans report having a similar number of days of poor physical or mental health during the past 30 days as other Americans. However, Coloradans report a higher number of days of activity limitation during the past 30 days than their national counterparts.

Colorado's relatively healthy population must be placed within the context of a nationwide tide of concern for chronic disease and the factors that put persons at risk for disease. Although it is notable that Colorado's chronic disease indicators are generally better than national averages, the telling fact is that 8 out of every 10 deaths in Colorado, nearly 18,000 deaths per year, can be attributed to chronic disease.

Looking at the indicators of chronic disease and deaths from chronic disease, it does appear that Coloradans fare better than Americans as a whole.

Still a State at Risk for Chronic Disease

Reviewing statistics on deaths and new cases provides a snapshot of the current state of chronic disease in Colorado. But the future health status of Coloradans can be predicted by examining those characteristics and behaviors that put individuals at risk for developing chronic diseases. Many factors have been identified as increasing the risk for chronic disease. Some of these, such as advancing age, family history, gender and genetics, are outside the control of individuals. Other risk factors, however, can be changed. Table 1 illustrates the relationships between the most significant modifiable risk factors and the most common chronic diseases. Three of these behaviors—tobacco use, lack of physical activity and poor eating habits—account for approximately one-third of all deaths among Americans[3].

TABLE 1

Modifiable Risk Factors for the Most Common Chronic Diseases*

MODIFIABLE RISK FACTORS	MOST COMMON CHRONIC DISEASES			
	Cancer	***Cardiovascular Disease***	***Diabetes and Related Complications***	***Chronic Lower Respiratory Disease***
Cigarette smoking and secondhand smoke	Smoking—cancers of the lung, bladder, cervix, colon/rectum, esophagus, kidney, larynx and pancreas; Secondhand smoke—lung cancer	Heart disease and stroke	Lower extremity amputations	Smoking—chronic obstructive pulmonary disease (chronic bronchitis and emphysema); Secondhand smoke—asthma
Excess body weight	Breast, colon, kidney, gallbladder, prostate, cervical, ovarian and esophageal cancer	Heart disease and stroke	Type 2 diabetes	Asthma
Inadequate quantities of fruits and vegetables and other dietary factors	Preventive effect for cancer of the mouth, pharynx, esophagus, larynx, lung, stomach, kidney, colon, rectum, ovary (vegetables only) and bladder (fruit only).	Heart disease and stroke	Type 2 diabetes	
Inadequate levels of physical activity	Breast, colon and possibly endometrial and prostate cancer	Heart disease and stroke	Type 2 diabetes	
High blood pressure (hypertension)		Heart disease and stroke	Type 2 diabetes	
High cholesterol		Heart disease and stroke	Type 2 diabetes	
Sun exposure	Malignant (melanoma) and nonmalignant skin cancer			

** The areas shaded in blue indicate the diseases associated with each risk factor.*

Over the past decade, Coloradans have had varying degrees of success in reducing risk factors for chronic disease.

Encouraging

CIGARETTE SMOKING AMONG ADULTS

- Approximately 17 percent of Colorado adults were current smokers in 2005, representing a downward trend since 1990.
- Following an increase in the state excise tax on cigarettes in January 2005, per capita sales of cigarette packs in Colorado dropped by more than 25 percent.

PHYSICAL ACTIVITY AMONG ADOLESCENTS

- In 2005, 70 percent of Colorado high school students participated in vigorous physical activity three or more days per week for 20 or more minutes per day.
- Also in 2005, 73.2 percent of adolescents watched television for two or fewer hours each day.

Cautious

PHYSICAL ACTIVITY AMONG ADULTS

- In 2005, an estimated 55 percent of adults met recommended levels of moderate or vigorous physical activity. This proportion has remained unchanged since 2001.

TOBACCO USE AMONG ADOLESCENTS

- An estimated 18.7 percent of Colorado high school students reported cigarette smoking within the past 30 days in 2005.
- In 2005, approximately 9.1 percent of Colorado adolescents had used smokeless (spit) tobacco within the past 30 days.

HIGH BLOOD PRESSURE

- The percentage of Colorado adults with high blood pressure decreased from 21.5 percent to 20.1 percent between 1995 and 2005.

Many of the primary risk factors for chronic disease also are related to complications of diabetes. For example, failure to regulate cholesterol levels and blood pressure contribute to amputations of the lower extremities for persons with diabetes.

Chronic disease is largely preventable. Progress on reducing risk factors among Coloradans can significantly improve the burden of disease and health care costs in the state. Failure to decrease these risk factors among Colorado's population threatens to increase rates of chronic disease in the future.

Of Concern

OBESITY AND OVERWEIGHT AMONG ADULTS

- In 2005, an estimated 17.8 percent of Colorado adults were obese. This is an increase of approximately 125 percent since 1990.
- An additional 36.7 percent of Colorado adults were overweight, but not obese, in 2005. This is an increase of more than 20 percent since 1990.

OVERWEIGHT AMONG ADOLESCENTS

- In 2005, an estimated 9.8 percent of Colorado adolescents were overweight.

FRUIT AND VEGETABLE CONSUMPTION

- An estimated 24.5 percent of Colorado adults ate fruits and vegetables five or more times per day in 2005. This proportion has remained relatively the same since 1994.
- In 2005, fewer than 20 percent of Colorado high school students consumed five or more servings of fruits and vegetables daily.

Screening and Early Detection Can Help

While prevention is the first defense against chronic disease, screening can help to identify disease at an early stage when it might be more easily controlled or treated. Early detection also might reduce or delay activity limitations and declining quality of life for those diagnosed with chronic disease.

Several strategies have been shown to be effective in screening for chronic diseases and cost-effective for use with the general population. These include mammograms, clinical breast exams, Pap smears, fecal occult blood tests, endoscopy (including sigmoidoscopy and colonoscopy), cholesterol screening and several tests related to diabetes and its complications.

Recent surveys indicate the proportion of Coloradans who are being reached with these screening strategies:

SCREENING FOR CANCER

- In 2004, 71.3 percent of Colorado women age 40 and older had a mammogram to screen for breast cancer in the past two years, which is slightly lower than the national percentage. A slightly larger percentage (81.8 percent) had a clinical breast exam by a health care professional.
- In 2004, 83.9 percent of Colorado women reported that they had received a Pap smear to check for cervical cancer within the past three years.
- The proportion of Coloradans age 50 and older who had a fecal occult blood test or endoscopy to screen for colon and rectal cancer was 64 percent in 2004. Since 1999, the percentage of persons receiving the fecal occult blood test has declined while the percentage of individuals undergoing endoscopy has increased.

SCREENING FOR HEART DISEASE AND STROKE RISK

- In 2005, the proportion of Colorado adults screened for high levels of cholesterol within the past five years was 70.9 percent.

SCREENING FOR DIABETES COMPLICATIONS

- Among adults with diabetes, 62.1 percent reported checking their blood sugar level on a daily basis in 2005.
- Also in 2005, 74.2 percent of adults with diabetes had a foot exam and 70.5 percent had a dilated eye exam in the past year.

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Adding to the Picture of Chronic Disease

Socioeconomic conditions, including poverty, low education level and lack of health care coverage, are associated with poor health and higher incidence of chronic disease. While Colorado has seen gains in reducing deaths from and new cases of chronic disease, little progress has been made in improving related conditions that affect health status:

- *Income* provides a measure of the resources available to an individual or family for basic necessities, such as food, housing and transportation, all of which are critical to maintaining or improving well-being. In Colorado, nearly 500,000 individuals (11.4 percent of the state's population) lived below the federal poverty level. While this is slightly below the national rate, the poverty estimate for Colorado increased in both 2004 and 2005, which is the only consecutive two-year increase since 1993.
- A low *level of education* among young adults is strongly associated with low income and poor health status later in life. In 2000, the percentage of persons in Colorado aged 18–24 who had completed high school was 75.1 percent, which was similar to the national percentage but down slightly from the Colorado rate in 1990.
- Lack of *health insurance* is directly related to an individual's access to necessary health services, including preventive care, screening and treatment. In 2005, 18.3 percent of Colorado adults (equal to 637,000 people) had no health care coverage, a proportion that has changed little since 1993.

Impact on Different Population Groups in Colorado

The data collected on chronic diseases and their risk factors attempt to describe these conditions among the people of Colorado. But a description of the state as a whole tends to reflect groups that are the majority of the population. By examining the data for specific, smaller population groups, it becomes apparent that levels of chronic disease and risk factors vary between groups. The differences in health status among groups in the population are known as health disparities.

The most common characteristics that are identified with health disparities are race/ethnicity, gender, age, income, education, sexual orientation and geography (urban, rural and frontier). As much as possible, information on these characteristics is collected, along with information on diseases or risk factors, to determine how different population groups are affected.

Interpreting data on smaller population groups must be approached cautiously. Much of the information that describes diseases and risk factors is collected by looking at only a portion of the population, known as a sample. Statistically speaking, as the size of the sample gets smaller, the estimate becomes less precise. So for population groups that are fewer in number in the state, such as African-Americans, rural or frontier residents or persons below the federal poverty level, the accuracy of the information may be in question.

Within these limitations of the data, certain trends in national and state health information have been identified over time. In general, African-Americans and Hispanics tend to have higher rates of disease, deaths and risk factors than non-Hispanic White groups, although this is not necessarily true for all diseases and risk factors. Similarly, disease and risk factor rates tend to be higher for persons with low incomes or low education levels than for the general population. The correlation between race/ethnicity, income and education level make it difficult to pinpoint a single factor leading to health disparities. People in urban areas tend to fare better than rural or frontier residents, with some exceptions. Access to health and wellness services may be a factor related to differences in chronic disease based on geography.

In general, rates of chronic disease and deaths from chronic disease increase with age. However, the prevalence of many risk factors is higher among young or middle-aged adults than among people in older age groups. This is the case for obesity and tobacco use. Disparities exist between men and women in rates of disease, death and risk factors, although no specific patterns can be identified.

The following are some of the highlights on health disparities suggested by the latest data collected on Colorado's population. These statements illustrate that generalizations about chronic disease and risk factors for specific population groups are not advisable. For more complete details on possible differences between population groups on rates of disease, deaths and risk factors, see the full *Colorado Chronic Disease Indicators Report* at www.cdphe.state.co.us/pp/chronicdisease/ or *Racial and Ethnic Health Disparities in Colorado, 2005* at www.cdphe.state.co.us/ohd/publications.html.

RACE AND ETHNICITY

- African-Americans have higher death rates from cardiovascular disease and overall cancers than non-Hispanic Whites.
- Colorado's American Indians have death rates from heart disease and cancer that are below the state average[4].
- The Asian-American/Pacific Islander population has the lowest death rate from heart disease of any population group[5].
- While the death rate from diabetes has steadily increased for African-Americans, it has declined for Hispanics in the past five years.
- Non-Hispanic Whites in Colorado have a much higher death rate from chronic obstructive pulmonary disease than either Hispanics or African-Americans.
- A larger proportion of African-Americans, Hispanics and American Indians[6] have received a diagnosis of diabetes than Colorado's non-Hispanic White population.
- A greater proportion of African-Americans and Hispanics in Colorado are obese than non-Hispanic Whites.

INCOME/EDUCATION

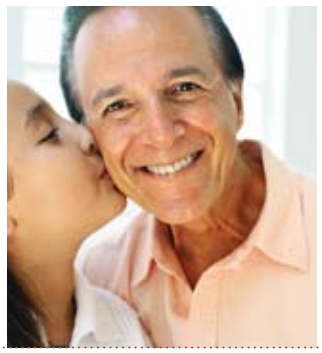
- Relative to people with higher incomes, Coloradans with the lowest incomes have higher rates of lung, colorectal and cervical cancer, but lower rates of melanoma, breast and prostate cancer.
- People with lower incomes are less likely to have obtained many common screenings for chronic disease, such as endoscopy for colorectal cancer and Pap smears for cervical cancer.
- People with less than a high school education have a much higher smoking rate than people who have graduated from college.

GENDER

- Men in Colorado have higher death rates from heart disease and stroke than women (although heart disease is the leading cause of death among women in Colorado).
- Women in Colorado have a higher overall risk for developing cancer within their lifetimes than men.
- Women are more likely than men to consume recommended levels of fruit and vegetables.

AGE

- The death rate due to asthma rises steadily with age in Colorado.
- Obesity increases uniformly with age until age 65.
- Among all age groups, the proportion of people who smoke is highest among ages 18–24.



Costs of Caring for Chronic Disease

Chronic disease takes its toll on individuals and families by reducing quality of life, increasing activity limitations and potentially bringing about premature death. Financial costs created by chronic disease also are a burden on individuals, insurers, employers and the health care system. Financial costs can be direct, meaning the dollars used to provide prevention, screening and treatment services, or indirect, referring to the loss of income and productivity when people are ill or die prematurely. (See Table 2.)

Average health care costs for people with at least one chronic disease are 2-1/2 times greater than for people with no chronic conditions. In 2001, 83 percent of all health care spending was for people with chronic disease. Looking at the source of payment, chronic conditions account for 74 percent of private insurance spending, 83 percent of Medicaid spending and 96 percent of Medicare spending[7]. The state is responsible for much of the burden of Medicaid payments.

A primary contributor to the direct costs of care for chronic disease is hospitalization. Over the past decade, hospitalization rates due to many of the most common chronic diseases have declined somewhat in Colorado. This includes hospitalizations for heart attack, congestive heart failure, stroke and asthma. Contrary to this trend, rates of hospitalization when diabetes is listed as a diagnosis rose steadily during that time, for an increase of 63 percent. (See Figure 3.) In 2005, the average cost of a hospital stay for these diseases in Colorado ranged from $12,515 for asthma to $55,929 for a heart attack.

TABLE 2. Annual Direct and Indirect Costs of Selected Chronic Diseases, United States

CARDIOVASCULAR DISEASE[8]
Direct cost estimate: $283.2 billion in 2007
Indirect cost estimate: $148.6 billion in 2007

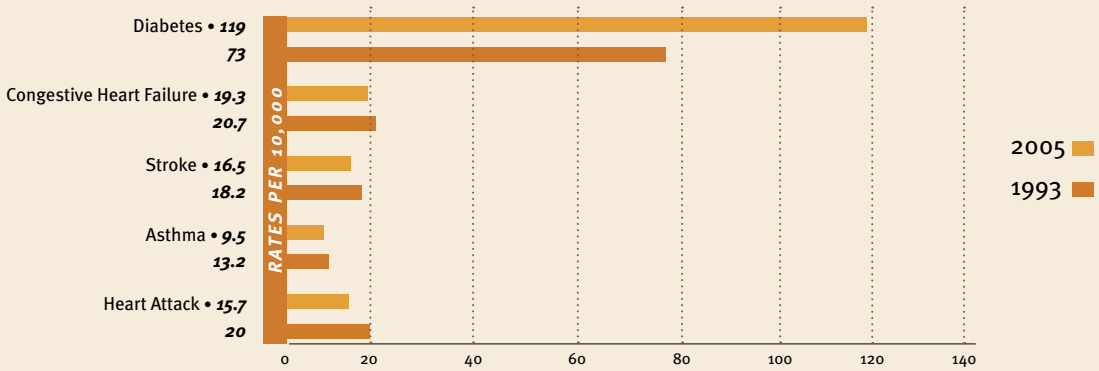
CANCER[9]
Direct cost estimate: $72.1 billion in 2004
Indirect cost estimate: $190 billion in 2004

DIABETES[10]
Direct cost estimate: $91.8 billion in 2002
Indirect cost estimate: $39.8 billion in 2002

CHRONIC OBSTRUCTIVE PULMONARY DISEASE[11]
Direct cost estimate: $20.9 billion in 2004
Indirect cost estimate: $16.3 billion in 2004

ASTHMA[12]
Direct cost estimate: $11.5 billion in 2006
Indirect cost estimate: $4.6 billion in 2006

figure 3. ***Hospitalization Rates in Colorado, 1993 and 2005***



SOURCE: *Colorado Hospital Discharge Data, Colorado Hospital Association*

The financial burden of the primary risk factors for chronic disease also has been estimated. State and national estimates of direct and indirect costs are available for obesity and cigarette smoking (Table 3):

TABLE 3. Annual Direct and Indirect Cost of Selected Risk Factors for Chronic Disease, United States and Colorado

OBESITY[13]
Direct cost estimate, U.S.: $75 billion in 2003
Direct cost estimate, Colorado: $874 million in 2003

CIGARETTE SMOKING[14]
Direct cost estimate, U.S.: $94.9 billion in 2004
Indirect cost estimate, U.S.: $95.7 billion in 2004
Direct cost estimate, Colorado: $1.3 billion in 2004
Indirect cost estimate, Colorado: $922 million in 2004

Estimates have been made of the cost savings to be achieved through prevention or through screening for some chronic diseases in earlier stages. Some examples include[15]:

- For a cost ranging from $1,108 to $4,542 for smoking cessation programs, one quality-adjusted year of life is saved.
- For the cost of 100 Pap tests for low-income elderly women, about $5,907 and 3.7 years of life are saved.
- A mammogram every two years for women aged 50–69 costs only about $9,000 per year of life saved.

Taking Action on Chronic Disease Prevention

The data that describe the human and financial burden of chronic disease in Colorado reveal some progress in reducing deaths and new cases of illness, but also highlight a growing concern about stubborn or skyrocketing risk factors and mounting health care costs. The analysis provides clear direction for future public health and health care efforts:

- Prevent development of chronic disease by helping Coloradans reduce modifiable risk factors.
- Reduce disability, declining quality of life and premature death caused by chronic disease through access to screening and health maintenance services.

Over the past decade, the Colorado Department of Public Health and Environment has begun to build a framework for addressing chronic disease, initially with funds from the Centers for Disease Control and Prevention. (See Appendix 2 for highlights of current department chronic disease programs.) This focus on chronic disease received substantial support in 2004 when Colorado voters approved an increase in the state's tobacco tax through Amendment 35.

Using the proceeds from this new tax, the Colorado General Assembly approved legislation establishing a competitive grants program focused on three areas: the prevention, early detection and treatment of cancer, cardiovascular disease and chronic lung disease; tobacco prevention and education; and health disparities. Administration of these programs rests with the department. Through December 2006, nearly $95 million had been distributed to organizations and institutions across Colorado to address these chronic diseases and related risk factors and to reduce health disparities.

Progress on preventing chronic disease and lessening its impact will be possible only through the combined action of public and private organizations at the local, state and national level. Within this context, the state plays an important role in coordinating chronic disease efforts in Colorado:

PLANNING

State plans have been developed for the prevention and control of cardiovascular disease and stroke, cancer, diabetes, arthritis and asthma, and for decreasing tobacco use and obesity and improving physical activity and nutrition. Each plan was developed by a coalition of state and local stakeholders who brought a breadth of expertise and perspectives to the process. Taken together, these documents provide a long-term blueprint for reducing chronic disease in the state. Strategies funded through tobacco tax dollars, federal grants and other sources are aligned with these state plans.

MONITORING

The Colorado Department of Public Health and Environment has an effective structure for collecting and analyzing population-level data that can be used to track changes in the burden of chronic disease and risk factors over time and to measure differences among groups in Colorado. This data system also can be useful in evaluating progress on long-term disease prevention and control objectives.

ENGAGING PARTNERS
With statewide reach, the department can build the capacity for health promotion and disease prevention by creating partnerships with organizations and groups across the state that share this agenda. Key partners in this work are Colorado's local health agencies, which are best suited to convey the perspective of Colorado's varied counties. Establishing partnerships with organizations and individuals representing racial and ethnic communities is essential for the work to be effective across all populations in the state.

POLICY
The Colorado Department of Public Health and Environment has expertise in chronic disease issues and a perspective on strategies and solutions that comes from its relationship with experts at the national level, in other states and in local communities. From this vantage point, the state can provide guidance to state and local decision makers in the development and implementation of policy decisions that create environments and services to support healthy living.

MANAGING RESOURCES
Working with statewide networks created to address chronic disease, the department is in a position to understand resource needs, identify sources of funding and coordinate resources across chronic disease efforts in order to achieve optimal impact.

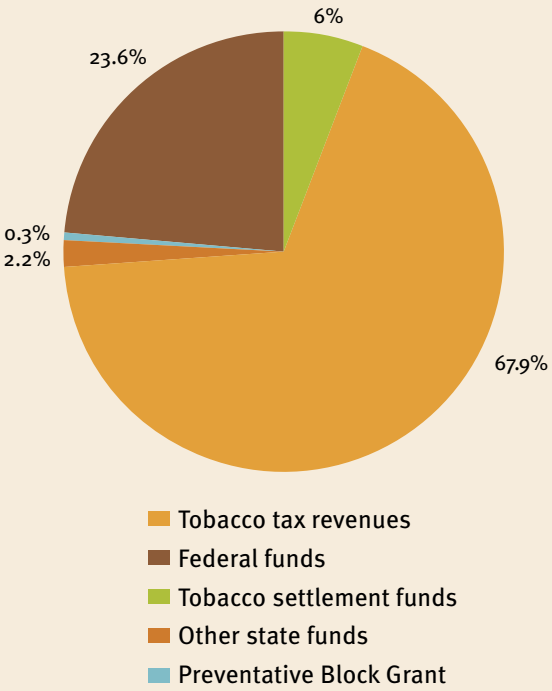
INTEGRATION
The department's efforts and partnerships span the range of interrelated chronic diseases and risk factors. The broad scope of this work brings the potential for creating an integrated and coordinated response to chronic disease at the state level.

BEST PRACTICES
The department is in a position to join with its national partners in building awareness of evidence-based practices for public health approaches to disease prevention and control and disseminating those best practices statewide.

In 2003–04, the Association of State and Territorial Chronic Disease Program Directors conducted a survey of state health agencies on resources, plans and priorities and continuing education relative to chronic disease. This survey showed that per capita spending on chronic disease prevention and control by the responding states and territories averaged $4.18. This compares to per capita medical care spending for chronic diseases of $1,860 (2002 estimate). Fifty-eight percent of prevention spending nationwide was from state sources, more than half of which was from the Master Settlement Agreement negotiated between states and the tobacco industry in 1998. In a similar survey conducted in 1989, 77 percent of chronic disease spending was from state sources, suggesting a decrease in states' abilities to support chronic disease prevention and an increase in federal influence in this area.[16]

During Colorado state fiscal year 2006 (July 2005–June 2006), the Colorado Department of Public Health and Environment administered $61,530,606 targeted to chronic disease prevention and control, for per capita spending of $13.19. This is more than three times the national average reported in the 2003-04 survey. Figure 4 details the source of these funds. Nearly 70 percent of all chronic disease spending was made possible by Amendment 35. Chronic disease funding generally is directed by federal requirements, legislative mandates or other programmatic requirements that restrict its use. Nevertheless, the availability of tobacco tax revenue for chronic disease has allowed Colorado to defy the trend toward declining state investment in chronic disease prevention.

figure 4. ***Chronic Disease Expenditures, Colorado Department of Public Health and Environment, Fiscal Year 2006***



SOURCE: *Colorado Department of Public Health and Environment, Prevention Services Division*

Recommendations for Continued Investment in Chronic Disease Prevention

Coloradans have the right to be proud of the many ways in which they are "healthiest in the nation." Colorado's leaders deserve credit for directing revenue toward reducing chronic disease and related risk factors. The Colorado Department of Public Health and Environment has taken the lead in developing a foundation for chronic disease prevention with capacity for gains over the long term.

Nevertheless, spending on chronic disease prevention is dwarfed by the overwhelming cost of medical care to treat chronic diseases and their complications, which are preventable to a large degree. To preserve Colorado's human and financial resources, the state must sustain and enhance its investment in building an integrated and focused chronic disease prevention program. This program must involve a range of partners, reach key populations across the state and use the best available evidence to determine primary strategies and interventions.

The following are recommendations for enhancing Colorado's efforts in chronic disease prevention:

- Continue to support chronic disease prevention through Amendment 35 and other existing or potential state sources of funding. State dollars should be directed toward evidence-based strategies for reducing the primary risk factors that crosscut the most prevalent chronic diseases: smoking, obesity, lack of physical activity and poor nutrition.
- Require and support an integrated approach to addressing the interrelated chronic diseases and risk factors. Conflicting or uncoordinated restrictions on funding that encourage a siloed approach to disease prevention should be resolved. Incentives that promote integrated strategies should be provided.
- Support enhanced data collection that provides a more accurate picture of smaller population groups within Colorado that are most likely to experience health disparities, such as specific racial or ethnic groups or rural residents. More reliable data will provide a sound basis for making decisions about program focus and distribution of resources.
- Focus greater effort on reducing health disparities among population groups in Colorado. Raising awareness of the impact of socioeconomic conditions on health, improving cultural and linguistic competency of public health programs, increasing the racial and ethnic diversity of the public health and health care workforce, identifying chronic disease prevention strategies that have proven effective for select population groups and ensuring that program planning and implementation have included participation of the affected populations are important steps toward eliminating health disparities.
- Assist individuals in taking responsibility for their own health by creating policies, environments and programs that support them in making healthy choices. State laws, such as the Colorado Clean Indoor Air Act, benefit all Coloradans. Local decision-makers can lead the way in adapting communities for healthy eating and active living.

- For Coloradans already diagnosed with chronic disease, increase opportunities for learning effective self-management of the condition(s). Community-based self-management classes are designed to enhance regular treatment by improving individuals' confidence in managing their health and maintaining active lives. A chronic disease self-management program developed by Stanford University demonstrated a cost-to-savings ratio of 1:10.
- Support enhanced evaluation of Colorado's chronic disease efforts. Lessons learned about past successes and failures can be used to guide program improvements and effectiveness.

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Summary list of chronic disease indicators by group, from *Indicators for Chronic Disease Surveillance*

No.	Group	Title	Age (yrs) or Grade	Sex	Data source*
	Physical activity and nutrition				
1		Fruit and vegetable consumption, adults	≥ 18	Both	BRFSS
2		Fruit and vegetable consumption, youth	Grades 9–12	Both	YRBS
3		Overweight and obesity, adults	≥ 18	Both	BRFSS
4		Obesity, adults	≥ 18	Both	BRFSS
5		Overweight, youth	Grades 9–12	Both	YRBS
6		Recommended physical activity, adults	≥ 18	Both	BRFSS
7		Vigorous physical activity, youth	Grades 9–12	Both	YRBS
8		Television viewing, youth	Grades 9–12	Both	YRBS
	Tobacco and alcohol use				
9		Binge drinking, adults	≥ 18	Both	BRFSS
10		Binge drinking, women of childbearing age	18–44	Female	BRFSS
11		Binge drinking, youth	Grades 9–12	Both	YRBS
12		Alcohol use, youth	Grades 9–12	Both	YRBS
13		Heavy drinking, adult males	≥ 18	Male	BRFSS
14		Heavy drinking, adult females	≥ 18	Female	BRFSS
15		Mortality from chronic liver disease	All	Both	Vital statistics
16		Cigarette smoking, adults	≥ 18	Both	BRFSS
17		Cigarette smoking, youth	Grades 9–12	Both	YRBS/ YTS
18		Smokeless tobacco use, youth	Grades 9–12	Both	YRBS/ YTS
19		Sales of cigarette packs	All	Both	STATE/ Revenue agency
	Cancer				
20		Incidence of invasive cancer (all sites combined)	All	Both	Cancer registry
21		Mortality from cancer (all sites combined)	All	Both	Vital statistics
22		Incidence of cancer of the lung and bronchus	All	Both	Cancer registry
23		Mortality from cancer of the lung and bronchus	All	Both	Vital statistics
24		Incidence of cancer of the colon and rectum	All	Both	Cancer registry
25		Mortality from cancer of the colon and rectum	All	Both	Vital statistics
26		Incidence of invasive cancer of the female breast	All	Female	Cancer registry
27		Mortality from cancer of the female breast	All	Female	Vital statistics
28		Incidence of invasive cancer of the prostate	All	Male	Cancer registry
29		Mortality from cancer of the prostate	All	Male	Vital statistics
30		Incidence of invasive cancer of the cervix	All	Female	Cancer registry
31		Mortality from cancer of the cervix	All	Female	Vital statistics
32		Incidence of cancer of the bladder (in situ and invasive)	All	Both	Cancer registry

Summary list of chronic disease indicators by group, from *Indicators for Chronic Disease Surveillance*

No.	Group	Title	Age (yrs) or Grade	Sex	Data source*
	Cancer - *continued*				
33		Mortality from cancer of the bladder	All	Both	Vital statistics
34		Incidence of invasive melanoma	All	Both	Cancer registry
35		Mortality from melanoma	All	Both	Vital statistics
36		Incidence of invasive cancer of the oral cavity or pharynx	All	Both	Cancer registry
37		Mortality from cancer of the oral cavity or pharynx	All	Both	Vital statistics
38		Mammography use among women	≥ 40	Female	BRFSS
39		Clinical breast examination among women	≥ 40	Female	BRFSS
40		Papanicolaou smear use among women	≥ 18	Female	BRFSS
41		Fecal occult blood test or sigmoidoscopy/colonoscopy, adults	≥ 50	Both	BRFSS
42		Fecal occult blood test, adults	≥ 50	Both	BRFSS
43		Sigmoidoscopy/colonoscopy, adults	≥ 50	Both	BRFSS
	Cardiovascular Disease				
44		Mortality from major cardiovascular diseases	All	Both	Vital statistics
45		Mortality from diseases of the heart	All	Both	Vital statistics
46		Mortality from coronary heart disease	All	Both	Vital statistics
47		Mortality from congestive heart failure	All	Both	Vital statistics
48		Mortality from cerebrovascular disease (stroke)	All	Both	Vital statistics
49		Hospitalization for acute myocardial infarction	All	Both	Hospital discharge
50		Hospitalization for congestive heart failure	All	Both	Hospital discharge
51		Hospitalization for congestive heart failure, Medicare-eligible adults	≥ 65	Both	Hospital discharge
52		Medicare-eligible adults hospitalized for congestive heart failure	≥ 65	Both	Hospital discharge
53		Hospitalization for cerebrovascular accident or stroke	All	Both	Hospital discharge
54		Hospitalization for cerebrovascular accident or stroke, Medicare-eligible adults	≥ 65	Both	Hospital discharge
55		Medicare-eligible adults hospitalized for cerebrovascular accident or stroke	≥ 65	Both	Hospital discharge
56		Cholesterol screening, adults	≥ 18	Both	BRFSS
57		Prevalence of high blood pressure awareness, adults	≥ 18	Both	BRFSS
58		Taking medicine for high blood pressure control, adults	≥ 18	Both	BRFSS
	Overarching conditions				
59		Poverty	All	Both	CPS
60		High school completion, adults	18–24	Both	CPS
61		Premature mortality, adults	45–64	Both	Vital statistics
62		Life expectance at age 65 years	≥ 65	Both	Vital statistics

Summary list of chronic disease indicators by group, from *Indicators for Chronic Disease Surveillance*

No.	Group	Title	Age (yrs) or Grade	Sex	Data source*
	Overarching conditions - *continued*				
63		Life expectancy at birth	All	Both	Vital statistics
64		Current lack of health insurance, adults	18–64	Both	BRFSS
65		Self-assessed health status, adults	≥ 18	Both	BRFSS
66		Recent physical health, adults	≥ 18	Both	BRFSS
67		Recent mental health, adults	≥ 18	Both	BRFSS
68		Recent activity limitation, adults	≥ 18	Both	BRFSS
	Other diseases and risk factors				
69		Mortality with diabetes	All	Both	Vital statistics
70		Mortality with diabetic kedoacidosis	All	Both	Vital statistics
71		Diabetes prevalence, adults	All	Both	BRFSS
72		Amputation of a lower extremity attributable to diabetes	All	Both	Hospital discharge
73		Influenza vaccination, adults with diabetes	All	Both	BRFSS
74		Pneumonia vaccination, adults with diabetes	All	Both	BRFSS
75		Foot examination, adults with diabetes	All	Both	BRFSS
76		Self blood-glucose monitoring, adults with diabetes	All	Both	BRFSS
77		Dilated eye exam, adults with diabetes	All	Both	BRFSS
78		Hospitalization with diabetes	All	Both	Hospital discharge
79		Mortality from end-stage renal disease as underlying cause	All	Both	Vital statistics
80		Mortality with end-stage renal disease	All	Both	Vital statistics
81		Incidence of treated end-stage renal disease	All	Both	USRDS
82		Incidence of treated end-stage renal disease attributed to diabetes	All	Both	USRDS
83		Mortality with chronic obstructive pulmonary disease, adults	≥ 45	Both	Vital statistics
84		Pneumococcal vaccination, adults	≥ 65	Both	BRFSS
85		Influenza vaccination, adults	≥ 50	Both	BRFSS
86		Hospitalization with asthma	All	Both	Hospital discharge
87		Mortality from asthma	All	Both	Vital statistics
88		Hospitalization for hip fracture, Medicare-eligible adults	≥ 65	Both	Hospital discharge
89		Hospitalization for vertebral fractures, Medicare-eligible adults	≥ 65	Both	Hospital discharge
90		Visits to dentist or dental clinic, adults	≥ 18	Both	BRFSS
91		Teeth cleaning, adults	≥ 18	Both	BRFSS
92		All teeth lost, adults	≥ 65	Both	BRFSS

*BRFSS=Behavioral Risk Factor Surveillance System; YRBS=Youth Risk Behavior Survey; YTS=Youth Tobacco Survey; STATE=State Tobacco Activities Tracking and Evaluation System; CPS=Current Population Survey; USRDS=United States Renal Data System

SOURCE: *Centers for Disease Control and Prevention, "Indicators for chronic disease surveillance," Morbidity and Mortality Weekly Review, 53 (RR-11). 1-114, 2004.*

Arthritis Program

PRIMARY STRATEGIES

- Increase public awareness of arthritis as the leading cause of disability.
- Promote early diagnosis and appropriate management for people with arthritis to improve health-related quality of life.
- Provide training for and implementation of safe, effective, evidence-based programs in physical activity and self-management to prevent the onset of arthritis and its related disability.
- Ensure access to physical activity and self-management programs and services.
- Build and sustain national, statewide and community partnerships to ensure a delivery system for quality care and preventive services.

STATEWIDE PARTNERSHIP

Consortium for Older Adult Wellness

STATE PLAN

Colorado Action Plan for Older Adult Wellness: A Public Health Strategy, 2007
www.cdphe.state.co.us/pp/arthritis/coloradoactionplanforolderadultwellness.pdf

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/arthritis/index.html
www.consortiumforolderadultwellness.org

The Arthritis Program is dedicated to improving the quality of life for people affected by arthritis and other rheumatic conditions by increasing awareness and availability of safe and effective physical activity and self-management activities.

The Colorado Asthma Program exists to eliminate deaths and reductions in quality of life caused by asthma, particularly in disparate and underserved communities.

Colorado Asthma Program

PRIMARY STRATEGIES

- Collect and analyze statewide data to monitor and direct the course of asthma intervention.
- Provide communication about national trends, training and funding.
- Share information about other state programs, services and interventions.
- Provide technical support and coordination across state departments that can assist with implementation of the *Colorado Asthma Plan*.
- Promote and facilitate the statewide exchange of information regarding asthma management, research, treatment, guidelines and data collection.

STATEWIDE PARTNERSHIPS

Colorado Asthma Coalition
Northeast Colorado Asthma Coalition
Pueblo County Asthma Coalition
Mesa County Asthma Coalition
Prowers County Asthma Coalition

STATE PLAN

Colorado Asthma Plan: Putting the Pieces Together
www.cdphe.state.co.us/ps/asthma/documents/CO_state_asthma_plan.pdf

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/ps/asthma/

Cancer, Cardiovascular Disease and Pulmonary Disease Competitive Grants Program

The Cancer, Cardiovascular Disease and Pulmonary Disease Competitive Grants Program was created by the Colorado General Assembly to fund competitive grants that assist in the implementation of the state's strategic plans for cancer, cardiovascular and chronic pulmonary disease.

PRIMARY STRATEGIES

By Colorado statute, the grants are to fund programs that provide diagnosis and treatment services; train health care providers on evidence-based strategies for chronic disease prevention, screening and treatment; implement public education efforts; address health disparities; and convert proven research into effective public health practices.

STATEWIDE OVERSIGHT

A 16-member committee appointed by the Colorado Department of Public Health and Environment and the Colorado Legislature reviews applications and makes recommendations for funding to the Colorado Board of Health. The Colorado Board of Health has the final authority to approve the review committee's recommendations.

FUNDING

Designated by Amendment 35, which increased the tobacco excise tax and appropriated 16 percent of the annual revenue to the grant programs for reducing chronic disease and subsequent enabling legislation, HB-1262.

MORE INFORMATION

www.cdphe.state.co.us/pp/ccpd/

The program seeks to build a cohesive, coordinated and comprehensive approach to reducing chronic disease in Colorado.

The Colorado Physical Activity and Nutrition Program plans, implements and evaluates strategies to prevent obesity and related chronic disease and to promote healthy lifestyles for all Coloradans.

Colorado Physical Activity and Nutrition Program

PRIMARY STRATEGIES

- Increase physical activity.
- Increase consumption of fruits and vegetables.
- Reduce TV viewing among children and youth.
- Increase initiation and duration of breastfeading.
- Encourage healthy weight for obese and overweight Coloradans.
- Assist communities in taking a comprehensive approach to promoting healthy eating and active living, with every sector of the community presenting consistent messages and opportunities for physical activity and nutrition.

STATEWIDE PARTNERSHIP

COPAN Coalition

STATE PLAN

Colorado Physical Activity and Nutrition State Plan 2010
www.cdphe.state.co.us/pp/copan/2004stateplan.pdf

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/COPAN/COPAN.html

Colorado Women's Cancer Control Initiative

PRIMARY STRATEGIES

- Provide breast and cervical cancer screening and selected diagnostic services at no cost to women between the ages of 40 and 64 years old with limited income and insurance.
- Establish cooperative partnerships with multiple statewide providers of services.
- Promote efficient, effective, evidenced-based and culturally competent strategies that build capacity in those areas of greatest need.

STATEWIDE ADVISORY GROUP

Breast and Cervical Cancer Screening Program Advisory Board

FUNDING

- Designated by Amendment 35, which increased the tobacco excise tax and subsequent enabling legislation, HB-1262.
- Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/cwcci/index.html

The Colorado Women's Cancer Control Initiative works to reduce breast and cervical cancer mortality by promoting compliance with routine screening guidelines and timely, state-of-the-art diagnostic evaluation.

The Comprehensive Cancer Program works through coordinated public and private partnerships to reduce cancer deaths and to reduce the disparity in death rates in Colorado.

Comprehensive Cancer Program

PRIMARY STRATEGIES

- Provide public education.
- Implement professional education for health care providers.
- Host the Colorado Cancer Conference.
- Implement sun safety programs.
- Coordinate a colorectal cancer screening program.
- Coordinate prostate cancer outreach to African-American men.
- Create and disseminate regional and statewide cancer reports.
- Coordinate genetics and chronic disease program.
- Coordinate the *Cancer Resource Guide* for Colorado (www.CCRGonline.org).
- Provide community grants and technical assistance.
- Provide staff support to Colorado Cancer Coalition (www.coloradocancercoalition.org).

STATEWIDE PARTNERSHIP

Colorado Cancer Coalition

STATE PLAN

Colorado Cancer Plan 2005–2010
www.coloradocancercoalition.org/pdfs/cancerplan2005_2010.pdf

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/ccpc/index.html

Diabetes Prevention and Control Program

PRIMARY STRATEGIES

- Minimize the risk of developing diabetes.
- Prevent or delay the onset of diabetes.
- Minimize complications among those with diabetes.
- Allow adults and children with diabetes to fully participate in the community, school and work environments.

STATEWIDE PARTNERSHIP

Colorado Diabetes Network

STATE PLAN

Planning for the Future: Colorado Diabetes Prevention and Control Strategic Plan
www.cdphe.state.co.us/pp/diabetes/advisory.html

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/diabetes/index.html

The Diabetes Prevention and Control Program develops and promotes a comprehensive system of evidence-based community and health care services to reduce or delay the onset of diabetes and its complications and to enhance the quality of life of people affected by diabetes.

The Healthy Aging Program works toward the equitable provision of quality health and wellness programs and services for the prevention of chronic disease and its complications. The positive impact of these programs and services is to reduce health care costs, increase independence and improve quality of life for those 50 years and older.

Healthy Aging Program

PRIMARY STRATEGIES

- Provide leadership in establishing accessible prevention programs and services in the areas of safe and effective physical activity, improved nutrition, fall prevention and mental health.
- Create and sustain a statewide system for building professional capacity to deliver evidence-based programs at the community level.
- Disseminate the *Colorado Action Plan for Older Adult Wellness: A Public Health Strategy* and support adoption of community strategies and standards.
- Collaborate with national and state providers of aging services to identify and leverage resources.

STATEWIDE PARTNERSHIP

Consortium for Older Adult Wellness

STATE PLAN

Colorado Action Plan for Older Adult Wellness: A Public Health Strategy, 2007
www.cdphe.state.co.us/pp/arthritis/coloradoactionplanforolderadultwellness.pdf

FUNDING

- Centers for Disease Control and Prevention
- U.S. Administration on Aging
- Colorado Health Foundation

MORE INFORMATION

www.consortiumforolderadultwellness.org
(Healthy Aging website under development)

Heart Disease and Stroke Prevention Program

PRIMARY STRATEGIES

- Control high blood pressure.
- Control high cholesterol.
- Know signs and symptoms; call 911.
- Improve emergency response.
- Improve quality of care.
- Eliminate disparities.

STATEWIDE PARTNERSHIP

Cardiovascular Health Coalition
Colorado Stroke Advisory Board

STATE PLAN

Colorado Heart Healthy–Stroke Free: Reaching the Future 2005–2010
www.cdphe.state.co.us/pp/cvd/cardiovasculardiseaseandstrokestateplan.pdf

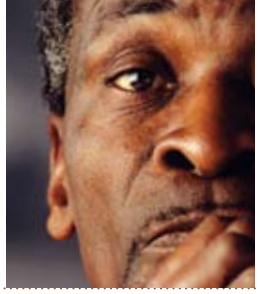
FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/cvd/cvdhom.html

The Heart Disease and Stroke Prevention Program is designed to reduce premature morbidity and mortality from heart disease and stroke and to promote healthy lifestyles for all Coloradans.



The State Tobacco Education & Prevention Partnership leads the fight against tobacco-caused death, disease and economic burden in Colorado by mobilizing agencies, organizations and individuals to work together to support tobacco-free lifestyles and environments.

State Tobacco Education & Prevention Partnership

PRIMARY STRATEGIES

- Prevent youth from starting to use tobacco.
- Help people who use tobacco to quit.
- Assist in the reduction of and protection from secondhand smoke.
- Reduce tobacco use among groups that are disproportionately affected and/or at high risk.
- Change social norms by altering perceptions about the acceptability of tobacco.
- Administer a grant program for nonprofits and government agencies working on tobacco control in Colorado.

STATEWIDE OVERSIGHT

A 16-member committee appointed by the Colorado Department of Public Health and Environment and the Colorado Legislature reviews applications and makes recommendations for funding to the Colorado Board of Health. The Colorado Board of Health has the final authority to approve the review committee's recommendations.

STATEWIDE PARTNERSHIP

Colorado Tobacco Education and Prevention Alliance

STATE PLAN

Colorado Strategic Plan for Tobacco Prevention and Control
www.steppcolorado.com

FUNDING

- Designated by Amendment 35, which increased the tobacco excise tax and appropriated 16 percent of the annual revenue to the grant program for reducing tobacco use, and subsequent enabling legislation, HB-1262.
- Centers for Disease Control and Prevention

MORE INFORMATION

www.steppcolorado.com

Steps to a Healthier Colorado

PRIMARY STRATEGIES IN PARTICIPATING COUNTIES

- Conduct chronic disease prevention efforts to reduce the burden of asthma, diabetes, obesity and related risk factors: physical activity, nutrition and tobacco use.
- Establish partnerships with schools, health care and community settings to implement chronic disease prevention strategies.
- Implement community wide media campaigns to encourage physical activity, improve nutrition and increase tobacco cessation attempts.

FUNDING

Centers for Disease Control and Prevention

MORE INFORMATION

www.cdphe.state.co.us/pp/steps/

Steps to a Healthier Colorado provides coordination, funding and technical assistance to support community-based programs that help residents of Mesa, Pueblo, Teller and Weld counties live longer, better and healthier lives.

Data Support for Chronic Disease Programs at the Colorado Department of Public Health and Environment

The Colorado Central Cancer Registry is the statewide cancer surveillance program of the Colorado Department of Public Health and Environment. The program's goal is to reduce death and illness due to cancer by informing citizens and health professionals through statistics and reports on the incidence, treatment, survival and deaths due to cancer. The registry is mandated by Colorado law and a regulation passed by the Colorado Board of Health. Information is collected from all Colorado hospitals, pathology labs, outpatient clinics, physicians solely responsible for diagnosis and treatment and state Vital Statistics. Pertinent data is registered on all malignant tumors except basal and squamous cell carcinomas of the skin. All individual patient, physician and hospital information is confidential as required by Colorado law.

The Health Statistics Section of the Center for Health and Environmental Information and Statistics promotes understanding and utilization of health status information through the collection, analysis and dissemination of vital event and health survey data. Data from the Behavioral Risk Factor Surveillance System and Vital Records assist in the monitoring and analysis of chronic disease trends.

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